



Attorney's Docket No. 6456-DIV

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Patent application

In re application of: Sankar Sambasivan

Group Art Unit: 1775

Serial No.: 10/761,021

Filed: 01/20/2004

For: **HIGHLY ANISOTROPIC CERAMIC THERMAL BARRIER COATING MATERIALS AND RELATED COMPOSITES**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT  
WITHIN THREE MONTHS OF FILING OR BEFORE MAILING OF  
FIRST OFFICE ACTION (37 CFR 1.97(b))**

**NOTE:** "An information disclosure statement shall be considered by the Office if filed: (1) within three months of the filing date of a national application; (2) within three months of the date of entry of the national stage as set forth in § 1.491 in an international application; or (3) before the mailing date of a first Office action on the merits, whichever event occurs last." 37 CFR 1.97(b).

**NOTE:** The "filing date of a national application" under 37 CFR 1.97(b) has two possible meanings. Where the filing is a direct one to the United States Patent & Trademark Office, the filing is defined in 37 CFR 1.53(b) as "the date on which: (1) A specification containing a description pursuant to § 1.71 and at least one claim pursuant to § 1.75; and (2) any drawing required by § 1.81(a), are filed in the Patent and Trademark Office in the name of the actual inventor or inventors as required by § 1.41." 37 CFR 1.97(b)(1). On the other hand, an international application that enters the national stage occurs when the applicant has filed the documents and fees required by 35 U.S.C. § 371(c) within the periods set forth in § 1.494 or § 1.495. 35 U.S.C. § 371(c) requires the filing of the following: (1) the national fee; (2) a copy of the international application, unless already sent by the International Bureau, and an English translation if filed in another language; (3) amendments under PCT Article 19, with a translation into English if made in another language; (4) an oath or declaration; and (5) a translation into English of any annexes to the International preliminary examination report, if such annexes were made in another language. 37 CFR 1.97(b)(2).

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Date: April 20, 2004

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Antonia M. Holland

(type or print name of person certifying)



## IDENTIFICATION OF TIME OF FILING THE ACCOMPANYING INFORMATION DISCLOSURE STATEMENT

The information disclosure statement submitted herewith is being filed within three months of the filing date of the application or date of entry into the national stage of an international application or before the mailing date of a first Office action on the merits, whichever event occurs last. 37 CFR 1.97(b).

**NOTE:** "No certification or fee is due when the filing is made within the above time period. It is advisable to ensure that no Office action has been mailed if the disclosure statement is delayed until after three months from filing.

**NOTE:** "An information disclosure statement will be considered to have been filed on the day it was received in the Office, or on an earlier date of a mailing if accompanied by a properly executed certificate of mailing under 37 CFR 1.8, or Express Mail certificate under 37 CFR 1.10. An Office action is mailed on the date indicated in the Office action." Notice of April 20, 1992 (1138 O.G. 37-41, 39).

**NOTE:** "The term 'national application' includes continuing applications (continuations, divisions, continuations-in-part) so three months will be measured from the actual filing date of an application as opposed [sic] to the effective date of a continuing application." Notice of April 20, 1992 (1138 O.G. 37-41, 39).

**NOTE:** "An action on the merits means an action which treats the patentability of the claims in an application, as opposed to only formal or procedural requirements. An action on the merits would, for example, contain a rejection or indication of allowability of a claim or claims rather than just a restriction requirement (37 CFR 1.142) or just a requirement for additional fees to have a claim considered (37 CFR 1.16(d)). Thus, if an application was filed on Jan. 1 and the first Office action on the merits was not mailed until six months later on July 1, the examiner would be required to consider any proper information disclosure statement filed prior to July 1." Notice of April 20, 1992 (1138 O.G. 37-41, 39).

**WARNING:** "A petition for suspension of action to allow applicant time to submit an information disclosure statement will be denied as failing to present good and sufficient reasons, since 37 CFR 1.97 provides adequate recourse for the timely submission of prior art for consideration by the examiner." Notice of July 6, 1992 (1141 O.G. 63).

Dated: April 20, 2004  
Reg. No. 53,840  
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SIGNATURE OF ATTORNEY

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**PATENT APPLICATION**

Reinhart Boerner Van Deuren s.c.

By: Antonia M. Holland  
Antonia M. Holland

Date: April 20, 2004



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**GROUP ART UNIT: 1775**

**EXAMINER:**

In re application of: Sankar Sambasivan )

Application No: 10/761,021 )

Filed: January 20, 2004 )

Attorney Docket No.: 6456-DIV )

For: HIGHLY ANISOTROPIC CERAMIC  
THERMAL BARRIER COATING  
MATERIALS AND RELATED  
COMPOSITES

April 20, 2004

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT**

Sir:

On behalf of Applicant and pursuant to 37 C.F.R. § 1.97-.98, U.S. patents that may be relevant are listed on Form 1449 and is hereby presented for consideration. Copies of the listed non-patent references and foreign patent applications are not required to be provided because they were cited by or submitted to the Patent Office in conjunction with the parent application serial no. 09/845,097.

Respectfully submitted,

BY Antonia M. Holland

Antonia M. Holland

Attorney for Applicant

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APR 22 2004  
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# TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application Number	10/761,021
Filing Date	01/20/2004
First Named Inventor	Sankar Sambasivan
Group Art Unit	1775
Examiner Name	
Attorney Docket Number	6456-DIV

Total Number of Pages in This Submission

## ENCLOSURES (check all that apply)

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment / Response <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an Application) <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s)	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Other Enclosure(s) (please identify below): Postcard IDS Statement by Attorney Transmittal of IDS
<b>Remarks</b> Applicant believes that all appropriate fees are hereby paid, but authorization is hereby given to charge Deposit Account No. <u>18-0882</u> for any fee deficiency or credit any overpayment. <i>Antonia M. Holland</i> Antonia M. Holland		

## SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Antonia M. Holland
Signature	<i>Antonia M. Holland</i>
Date	April 20, 2004

## CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this date: <u>April 20, 2004</u>	
Typed or printed name	Antonia M. Holland
Signature	<i>Antonia M. Holland</i>
Date	April 20, 2004

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Substitute for form 1449A/PTO

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

*(use as many sheets as necessary)*

Sheet 1 of 2

**Complete if Known**

Application Number	10/761,021
Filing Date	01/20/2004
First Named Inventor	Sankar Sambasivan
Group Art Unit	1775
Examiner Name	
Attorney Docket Number	6456-DIV

## U.S. PATENT DOCUMENTS

[illegible]

## FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentes or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sub>0</sub>
		Office <sup>2</sup>	Number <sup>3</sup>	Kind Code <sup>6</sup> <i>(if known)</i>				
	AP		JP-03- 279098		Shimizu	04-1994		
Examiner Signature						Date Considered		

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> The first column should be filled with the serial number of the document, as indicated on the document under WIPO Standard ST. 16 if possible. <sup>2</sup> Unique citation designation number. <sup>3</sup> Enter attached Kinds of U.S. Patent Documents. <sup>4</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>5</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>6</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>7</sup> Applicant is to place a check mark here if English language Translation is attached.

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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Sheet 2 of 2

**Complete if Known**

Application Number	10/761,021
Filing Date	01/20/2004
First Named Inventor	Sankar Sambasivan
Group Art Unit	1775
Examiner Name	
Attorney Docket Number	6456-DIV

**OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	AQ	RAVICHANDRAN, K., AN, K., DUTTON, R., and SEMIATIN, S.L. Thermal Conductivity of Plasma-Sprayed Monolithic and Multilayer Coatings of Alumina and Yttria-Stabilized Zirconia, Journal of the American Ceramic Society, Vol. 82, No. 3, March 1999, pp. 673-682.	
	AR	KLEMENS, P.G. and GELL, M. Thermal Conductivity of Thermal Barrier Coatings, Materials Science & Engineering, A245 (1998) pp. 143-148, Elsevier Science S.A. 1998.	
	AS	FAIR, G., SHEMKUNAS, M., PETUSKEY, W. and SAMBASIVAN, S. Layered Perovskites as 'Soft-ceramics', Journal of the European Ceramic Society, 1999, pp. 2437-2447, Elsevier Science Ltd., Great Britain, 1999.	
	AT	STEINER, K.A., Thermal Expansion and Compressibility of Layered Perovskite Compounds, Thesis for Arizona State University, August 1998.	

Examiner  
SignatureDate  
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